

IN THE CLAIMS

Claims 1-7 (canceled)

Claim 8 (currently amended): A fragment of the PIR domain of the protein hGrb14
~~selected from the group consisting of a fragment corresponding to positions 365-407 (SEQ ID No. 5) and a fragment corresponding to positions 353-436 (SEQ ID No. 6) consisting of the sequence SEQ ID NO: 5 or SEQ ID NO: 6.~~

Claim 9 (canceled)

Claim 10 (currently amended): A method for detecting *in vitro* molecules capable of modulating the tyrosine kinase activity of the insulin receptor, comprising:

- a) bringing an activated insulin receptor into contact with a fragment of the PIR domain of the protein hGrb14, wherein said fragment ~~is selected from the group consisting of a fragment corresponding to positions 365-407 (SEQ ID No. 5) and a fragment corresponding to positions 353-436 (SEQ ID No. 6) consists of the sequence SEQ ID NO: 5 or SEQ ID NO: 6,~~ and the molecule to be tested, under conditions which allow binding of said fragment to said receptor,
- b) adding a tyrosine kinase substrate,
- c) measuring the tyrosine kinase activity, and
- d) determining the modulation of the tyrosine kinase activity by comparison with a control consisting of the activated insulin receptor and said fragment.

Claim 11 (canceled)

Claim 12 (currently amended): The method of claim 10 further comprising preselection prior to step a) wherein molecules capable of modulating the interactions of a fragment of the PIR domain of the protein hGrb14 with the insulin receptor are identified, wherein said fragment is selected from the group consisting of a fragment corresponding to positions 365-407 (SEQ ID No. 5) and a fragment corresponding to positions 353-436 (SEQ ID No. 6) consists of the sequence SEQ ID NO: 5 or SEQ ID NO: 6, said preselection comprising:

- 1)a) immobilizing said fragment on a solid support,
- 2)b) bringing the molecule to be tested into contact with said fragment, then
- 3)c) incubating with a labeled and pre-activated insulin receptor, under conditions which allow binding of said receptor to said fragment,
- 4)d) separating said labeled receptor not retained on the support,
- 5)e) detecting the complex possibly formed between said fragment and said activated insulin receptor, and
- 6)f) determining the effect of the molecule by comparison with a control comprising said fragment and said insulin receptor absent the molecule to be detected.

Claims 13-20 (canceled)

Claim 21 (new): A fusion protein comprising the fragment of claim 8.

Claim 22 (new): A method for detecting *in vitro* molecules capable of modulating the tyrosine kinase activity of the insulin receptor, comprising:

- a) bringing an activated insulin receptor into contact with the fusion protein of claim 21, and the molecule to be tested, under conditions which allow binding of said fragment to said receptor,
- b) adding a tyrosine kinase substrate,
- c) measuring the tyrosine kinase activity, and
- d) determining the modulation of the tyrosine kinase activity by comparison with a control consisting of the activated insulin receptor and said fragment.

Claim 23 (new): The method of claim 22 further comprising preselection prior to step a) wherein molecules capable of modulating the interactions of a fragment of the PIR domain of the protein hGrb14 with the insulin receptor are identified, wherein said fragment consists of the sequence SEQ ID NO: 5 or SEQ ID NO: 6, said preselection comprising:

- a) immobilizing said fragment on a solid support,
- b) bringing the molecule to be tested into contact with said fragment, then
- c) incubating with a labeled and pre-activated insulin receptor, under conditions which allow binding of said receptor to said fragment,
- d) separating said labeled receptor not retained on the support,

- e) detecting the complex possibly formed between said fragment and said activated insulin receptor, and
- f) determining the effect of the molecule by comparison with a control comprising said fragment and said insulin receptor absent the molecule to be detected.